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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/765,965  
Filing Date: January 19, 2001  
Appellant(s): HENSGEN ET AL.

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RORY D. RANKIN  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 09/10/08 appealing from the Office action mailed 11/01/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|           |                 |         |
|-----------|-----------------|---------|
| 6,144,375 | JAIN ET AL.     | 11-2000 |
| 6,289,165 | ABECASSIS ET AL | 9-2001  |
| 5,729,471 | JAIN ET AL.     | 3-1998  |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1-5, 7-22 and 25-56 are rejected under 35 U.S.C. 102(e) as being anticipated by **Jain et al (6,144,375)**.

As to claim 1, note the **Jain** reference figures 1-7, discloses compressed digital data interactive program system and further discloses a method for processing broadcasts, comprising:

Receiving a broadcast of a program (Client Multimedia System 'CMS' 400), the broadcast containing a plurality of perspectives of the program, each of the perspectives providing a view of a given scene from a different angle (figs.3-5, col.5, line 57-col.6, line 13 and line 25-51);

Presenting a first perspective, the first perspective comprising a first perspective of a portion of the program; storing at least one of the pluralities of perspectives (fig.7 and col.22, lines 6-41);

Providing input from the a viewer (see fig.7 User Input) which indicates a desire to replay the portion of the program from a second perspective of the plurality of perspectives (col.22, lines 6-41);

Identifying (CMS-400 processor) in the first perspective a first point in time in the program, which corresponds to the beginning of the portion, responsive to the input; Automatically determining a second point in time in the second perspective where the second point in time comprises an approximation of the first point in the program and presenting the portion of the program from the second perspective to the viewer, beginning at the second point in time, storing meta-data corresponding to each one of more of the plurality of perspectives of the program, the meta-data comprising a least time and/or offset for each of the corresponding one or more plurality of perspectives (col.23, line 66-col.24, line 24, line 47-col.25, line 7, line 58-col.26, line 1+ and col.27,

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line 33-col.28, line 27), note that all the perspectives are related to each other on an intuitive manner. Furthermore Jain discloses in figures 1-3+; multiple video camera capturing system, for capturing various angles of in-progress video (live, e.g. sports events, etc.). The captured video frames by the multiple cameras are processed into an appropriate format (specific video sequence and associated time information). Jain further discloses a Scene Analysis Unit which processes scene(s) by estimating; approximating and interpolating between frames and assigning time information to a sequence of frames of a scene (note the scene analysis unit is further disclosed in Jain et al., Pat. 5,729,471 which is incorporated by reference, see col.3, lines 29-63).

As to claim 2, Jain further discloses where presenting the first perspective and storing are performed simultaneously (col.23, lines 21-30, col.25, line 44-col.26, line 1+ and col.29, lines 8-31).

As to claim 3, Jain further discloses where storing the at least one of the first perspective is performed automatically (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

As to claims 4 and 5, Jain further discloses where presenting at least one of the plurality of perspectives includes presenting at least one of the stored perspectives and storing are performed simultaneously (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

As to claim 7, Jain further discloses where receiving the broadcast includes receiving a plurality of related video streams, each stream including one of the perspectives (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

As to claim 8, Jain further discloses where identifying the first point in time in the first perspective comprises identifying a first offset in the stored file corresponding to the first perspective (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

As to claims 9, Jain further discloses where presenting the first perspective includes presenting the first perspective in one window of a display and presenting at least one of the plurality of perspectives includes presenting a second perspective from the plurality of stored perspectives in a different window (fig.7-9 and col.22, line 6-col.23, line 1+).

As to claim 10, Jain further discloses where storing at least one of the plurality of perspectives includes storing the perspectives in at least one circular buffer (col.25, line 44-col.26, line 1+).

As to claim 11, Jain further discloses where determining the second point in time in the second perspective comprises locating an offset in the second perspective which is near the first offset (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

As to claim 12, Jain further discloses where determining the second point in time in the second perspective comprises: searching stored meta-data to identify two consecutive offsets corresponding to the first perspective, such that the interval represented by the two consecutive offsets includes the first offset; utilizing a stored time corresponding to each of the two consecutive offsets to determine an approximated point in time; searching stored meta-data to identify two consecutive times corresponding to the second perspective, such that the interval represented by the two consecutive times includes the approximated point in time; utilizing a stored

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offset corresponding to each of the two consecutive times to determine an approximated offset and locating an offset in the second perspective which is near the approximated offset (col.25, line 44-col.26, line 1+, col.27, line 33-col.28, line 1+ and col.29, line 8-44, line 64-col.30, line 42).

As to claims 13-14, Jain further discloses where the plurality of perspectives of the program comprises MPEG data streams, and where the offset in the second perspective, which is near the first offset corresponding to an MPEG I-frame and where the offset in the second perspective which is near the approximated offset corresponds to an MPEG I-frame (col.22, lines 43-67).

As to claim 15, the claimed “a method for playing a multi-perspective program comprising...” is composed of the same structural elements that were discussed in the rejection of claim 1.

Claim 16 is met as previously discussed with respect to claim 1.

Claim 17 is met as previously discussed with respect to claim 9.

Claim 18 is met as previously discussed with respect to claim 11.

Claim 19 is met as previously discussed with respect to claim 12.

As to claim 20, the claimed “a system for recording a broadcast including a plurality of perspectives of the program comprising...” is composed of the same structural elements that were discussed in the rejection of claim 1.

Claim 21 is met as previously discussed with respect to claim 2.



As to claim 22, Jain further discloses where the recorded perspectives to the viewer without interrupting the recording of the broadcast (col.25, line 44-col.26, line 1+ and col.27, line 33-col.28, line 1+).

Claim 25 is met as previously discussed with respect to claim 1.

As to claim 26, Jain further discloses where the storage device is selected from the group consisting of: a magnetic disk, an optical disk and a flash memory (col.2, lines 26-44).

Claim 27 is met as previously discussed with respect to claim 11.

Claim 28 is met as previously discussed with respect to claim 12.

As to claim 29, Jain further discloses where the receiver comprises at least one tuner (col.6, lines 25-67 and col.10, lines 48-55).

As to claim 30, Jain further discloses where the receiver comprises a demultiplexer and a processor (col.6, lines 25-67).

As to claim 31, the claimed "a system for presenting broadcasts..." is composed of the same structural elements that were discussed in the rejection of claim 1.

Claim 32 is met as previously discussed with respect to claim 2.

Claim 33 is met as previously discussed with respect to claim 2.

Claim 34 is met as previously discussed with respect to claim 5.

Claim 35 is met as previously discussed with respect to claim 5.

Claim 36 is met as previously discussed with respect to claim 1.

Claims 37-38 are met as previously discussed with respect to claim 9.

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As to claims 39-40, Jain further discloses where the receiver is configured to receive a plurality of audio and/or video streams associated with the plurality of perspectives and where the A/V streams includes one of the perspectives (col.6, lines 25-67 and col.9, line 24+).

Claim 41 is met as previously discussed with respect to claim 11.

Claim 42 is met as previously discussed with respect to claim 12.

As to claim 43, Jain further discloses where the storage device includes at least one circular buffer 106 for storing at least one of the pluralities of perspectives (col.6, lines 25-67 and col.9, line 24+).

As to claim 44, Jain further discloses where the processor is configured to search at least one of the stored perspectives (col.27, line 33-col.28, line 1+ and col.29, line 8-44, line 64-col.30, line 42)

As to claim 45, the claimed “a computer program product for processing broadcasts, comprising...” is composed of the same structural elements that were discussed in the rejection of claim 1.

Claim 46 is met as previously discussed with respect to claim 2.

Claim 47 is met as previously discussed with respect to claim 1.

Claim 48 is met as previously discussed with respect to claim 4.

Claim 49 is met as previously discussed with respect to claim 2.

Claim 50 is met as previously discussed with respect to claim 11.

Claim 51 is met as previously discussed with respect to claims 39-40.

Claim 52 is met as previously discussed with respect to claim 12.

Claim 53 is met as previously discussed with respect to claim 9.

Claim 54 is met as previously discussed with respect to claim 43.

As to claims 55-56, Jain further discloses where receiving the broadcast includes simultaneously receiving a plurality of related video streams, each stream includes one of perspectives, where the streams do not have a same bit rate and where the locating comprises performing interpolation (col.27, line 33-col.28, line 1+ and col.29, line 8-44, line 64-col.30, line 42)

B. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jain et al (6,144,375)** and further in view of **Abecassis (6,289,165)**.

As to claims 23-24, Jain further teaches a receiver, which receives video transmitted via camera over radio frequency, decodes the video stream, stores and playback as desire via a Video out port connected to a monitor or TV screen or other display, but silent to explicitly use a STB which includes a storage device.

However of **Abecassis** teaches various multimedia receiving or player devices including a STB with storage capabilities (col.6, lines 19-48).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Abecassis into the system of Jain to provide a STB connected to conventional TV sets, so that end users don't have to buy a new TV along with the computer elements.

## **(10) Response to Argument**

The Examiner respectfully disagrees that the rejection should be reversed.

Appellant discusses rejections (under...112, under...102 and under...103 of the claims), the prior arts of record and the claimed invention, making references that the prior art of record, Jain (6,144,375): "...discloses filtering criteria and not the use of time and offset information..." that "...does disclose the use of time clock...Time clock here in Jain refers to time of a football program and not time of each perspective..." that "...does not describe any use of meta data such as time information for each perspective of a program....storage of meta-data for each perspective of a program is not disclosed..." (see page 13 of 40+ of Appellant's Brief) that "...there is no disclosure of determining an approximation of the first point in time in the program..." that "...no disclosure...determining a second point in time in the second perspective of the program..." that "...There is nothing in the entirety of Jain that remotely resembles such features ..." etc. (see page 16 of 40+ of Appellant's Brief).

In response, Examiner disagrees with assertion for several reasons. As to the rejection under 112, upon further consideration, the rejection is hereby withdrawn. Appellant(s) has mischaracterized the Jain reference by citing a few portions of the disclosure. Jain discloses in figures 1-3+; multiple video camera capturing system, for capturing various angles of in-progress video (live, e.g. sports events, etc.). The captured video frames by the multiple cameras are processed into an appropriate format (specific video sequence and associated time information). Jain further discloses a Scene Analysis Unit which processes scene(s) by estimating; approximating and

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interpolating between frames and assigning time information to a sequence of frames of a scene (note the scene analysis unit is further disclosed in Jain et al., Pat. 5,729,471 which is incorporated by reference, col.3, lines 29-63). Jain further discloses that Pat. '471, does not contemplate synchronizing multiple multi-media data types (i.e., video, audio, data and other information (col.4, lines 43-47). Jain further discloses that each camera sequence is stored along with its metadata including synchronization data (time and/or offset information) and is updated (col.7, lines 35-43). Each frame in the video sequence (the captured frames or a specific sequence) is associated with time information and the system synchronizes (using time and/or offset information for a perspective to select the best image (key frame) for a specific sequence of interest or to convert an image sequence of a camera to a scene sequence (col.7, lines 1-53, line 66-col.8, line 13). Jain further discloses storing meta-data which includes time/offset information for each corresponding perspective and further permits various multi-media data types associated with a particular viewing perspective to be synchronized. Jain clearly discloses that the various frames or frame sequence includes time information and upon a user interaction to select a scene of interest, the system selects the best image (frame) of the camera to present the best image (frame) sequence, by estimating or approximating and interpolating between frames using the accompanying time/offset information to synchronized and present to the user the video sequence of interest (col.11, lines 45-58, col.13, line 34-col.14, line 11, col.18, line 53-col.19, line 8, col.22, lines 43-67). Jain further discloses that the system is seamless and dynamic and automatically switches from one camera to the other by estimating or approximating the

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various camera images and associated time information to achieve different viewing perspective of the video and permits moving forward or backward in time (col.24, lines 50-53, col.25, line 58-col.26, line 1+, col.27, 15-col.28, line 1+, line 50-col.29, line 44 and col.30, line 43-col.31, line 1+). Jain for discloses that the system supports well-known communication protocols and video streaming can be delivered to a user in a user selectable form, e.g., RealVideo, DirectShow, etc. (col.13, line 66-col.14, line 11) and discloses real video server which delivers video of varying rates (different frame rate per second) using well-known video encoding and compressing method (col.22, lines 43-67). As to claims 23-24, Jain further teaches a receiver, which receives video transmitted via camera over radio frequency, decodes the video stream, stores and playback as desire via a Video out port connected to a monitor or TV screen or other display, but silent to explicitly use a STB which includes a storage device. However in the same field of endeavor, **Abecassis** teaches various multimedia receiving or player devices including a STB with storage capabilities (col.6, lines 19-48). In any event, the Appellant is reminded that a reference can be relied upon for all that would have reasonably suggested to one of ordinary skilled in the art, including non-preferred/preferred embodiments. Jain meets all the claims limitations as discussed above and hence the rejection (under...102 and under...103) is deemed proper and should be sustained.

#### (11) Related Proceeding(s) Appendix

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Annan Q Shang/

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